National Institute of Environmental Health Sciences

The incidence of asthmatic attacks in Barbados

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Abstract:

Asthma is a chronic disease in Barbados with a mean of 10 348 cases per year. This study was underaken to determine the demographic distribution of the asthmatic attacks, their relationship with several meteorological variables and to provide a predictive equation. The study used data on asthmatic attacks provided by the Accident and Emergency Department of the Queen Elizabeth Hospital and meteorological data from the Barbados Meteorological Office and the Caribbean Institute for Meteorology and Hydrology. The study found that the greatest number of asthmatic attacks occurred in children aged five years or younger, that there was an exponential decrease in asthmatic attacks with age, that the incidence was higher on the eastern side of the island and that there was a higher incidence in males than in females. The statistical analysis found the highest correlations with vapour pressure and a three-week lag relationship between our pressure and asthmatic attacks. A stepwise regression analysis provided a predictive equation.

Source: http://www.ncbi.nlm.nih.gov/pubmed/18303755

Resource Description

Exposure : ☑

weather or climate related pathway by which climate change affects health

Air Pollution, Indoor Environment, Meteorological Factors, Temperature

Air Pollution: Ozone, Other Air Pollution

Air Pollution (other): NO2

Temperature: Fluctuations

Geographic Feature: ☑

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Respiratory Effect

Respiratory Effect: Asthma

Population of Concern: A focus of content

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified